

SMA Directional Coupler 20 dB 2.6 GHz to 5.2 GHz Rated to 50 Watts

The FMCP1109 is an 20 dB RF coupler with 50 ohm SMA connectors operating from 2.6 to 5.2 GHz with a maximum input power of 50 Watts CW, and peak power handling of 3 kilowatt. The FMCP1109 has a coupling factor of 1 dB, insertion loss of (excluding coupled power) and a maximum VSWR of 1.25:1. The coupler operates over a temperature range of -55° to 105° C and meets environmental standard for humidity, shock, vibration, and altitude. Couplers have many Applications and perform several functions within the RF/Microwave industry such as circuit feedback and signal sampling for measurement or monitoring.



Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	2.6		5.2	GHz
Impedance		50		Ohms
Coupling	18.75	20	21.25	dB
Freq. Sensitivity			±0.75	dB
Insertion Loss			0.2	dB
Directivity	20			dB
Main Line VSWR			1.25:1	
Input Power (CW)			50	Watts
Input Power (Peak)			3	kWatts

Features:

- 2.6 to 5.2 GHz
- 50 Watts CW Max Power
- 20 dB Coupling Value
- Directional SMA Coupler
- Meets Standards for Humidity, Shock, Vibration, Altitude

Applications:

- Communications Systems
- CDMA, GSM, LTE
- Amplifier Systems
- Amplifier Power Dividing
- Aviation/Aerospace
- Defense Applications
- Wireless Telecommunications

Mechanical Specifications

Size

Length	1 in [25.4 mm]
Width/Dia.	0.38 in [9.65 mm]
Height	0.5 in [12.7 mm]

Finish

Housing Material and Plating	Gray Aluminum
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Configuration

Input Connector	SMA Female
Output Connector	SMA Female
Coupled Connectors	SMA Female

Environmental Specifications

Temperature

Operating Range	-55 to +105 deg C
Storage Range	-55 to +125 deg C

Humidity

Shock	100% RH at 35°C, 95% RH at 40°C
	20G for 11msec half sine wave, 3 axis both directions

Vibration

Altitude	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
	30,000 ft. (Epoxy Sealed Controlled environment)

Fairview Microwave
301 Leora Ln., Suite 100
Lewisville, TX 75056
Tel: 1-800-715-4396 / (972) 649-6678
Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

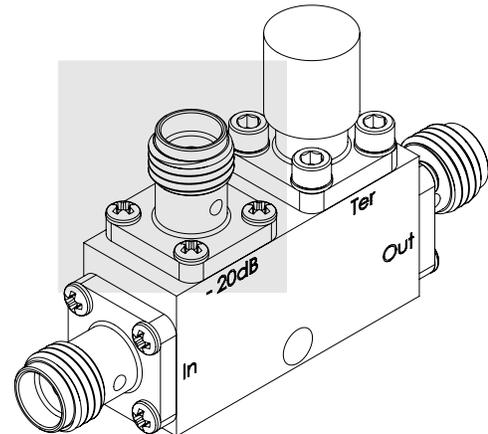
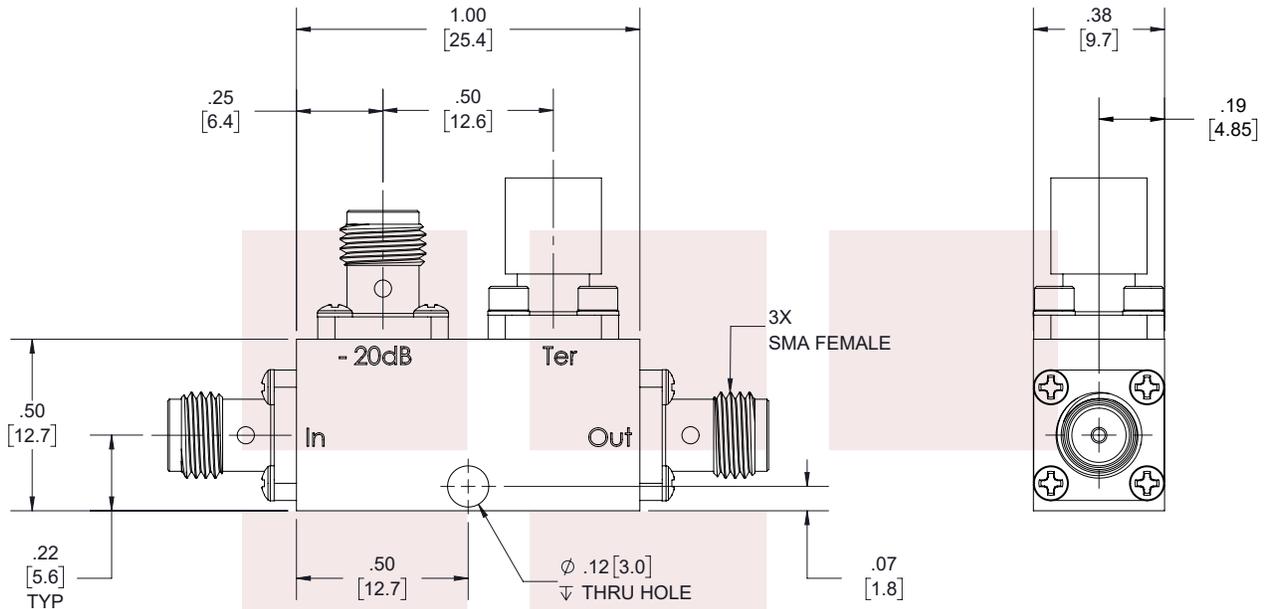
SMA Directional Coupler 20 dB 2.6 GHz to 5.2 GHz Rated to 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Directional Coupler 20 dB 2.6 GHz to 5.2 GHz Rated to 50 Watts FMCP1109](#)

URL: <https://www.fairviewmicrowave.com/sma-directional-standard-20-db-5.2-ghz-fmcp1109-p.aspx>

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/8/2020	S.PONG



LABEL:

FAIRVIEW MICROWAVE
FMCP1109
D/C: YYWW

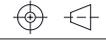
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TITLE
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
.X = ±.2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305]	= +1 [25] / -0
.XX = ±.02 [.51]	ANGLES ± 1°	12 [305] < L ≤ 60 [1524]	= +2 [51] / -0
.XXX = ±.005 [.13]		60 [1524] < L ≤ 120 [3048]	= +4 [102] / -0
		120 [3048] < L ≤ 300 [7620]	= +6 [152] / -0
		300 [7620] < L	= +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.Dang	ITEM NO. FMCP1109	REV A
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T-Rev.D